

REMARKS

Claim 1 is canceled, without prejudice. Previously-presented claims 2-35 are pending.

Claims 2, 3, 7, 11-14, 19, 20, 24, and 28-31 are rejected for obviousness over US Patent 6,178,337 B1 ("Spartz") in view of US Patent 6,122,505 ("Genell"). That rejection is respectfully traversed for the following reasons.

Axiomatically, rejection of a claim for obviousness over a combination of references requires some suggestion or motivation in the prior art to combine the references, a reasonable expectation of success, and the inclusion of all elements or steps, and all limitations thereof, in the combination. See the requirements for *prima facie* obviousness at MPEP 2142, et seq.

Taking claim 2 as representative, a method to be performed in a communication system includes "sending a base station Service Request from a base station to a mobile station controller for establishing a mobile-termination and base station-initiated call" and then "sending a base station Service Response message from said mobile station controller to said base station for acknowledging a call setup request by said base station."

A need for base station-initiated calls in communications systems is described in the specification at page 2, line 26 through page 3, line 27. In this regard, a base station may have to initiate a call setup over the A interface (between the base station and a mobile switching center) in order to support base station-initiated test and packet data services calls to subscriber units. Although the call takes place between the base station and a subscriber unit, it is *initiated* on the A interface by the base station and authorized (or not) by the mobile switching center. According to the recitation of claim 2, a base station initiates a call over the A interface by sending a "Service Request" to the mobile switching center; the mobile switching center analyzes the Service Request and allows it, or not (see the specification at page 4, lines 13-26). Upon analysis and decision, the mobile switching center sends a "Service Response" to the base station with the result of its analysis and an indication whether or not the call is allowed. See the specification at page 5, lines 6-17 and FIG. 3.

Spartz is concerned with providing an interface between CDMA subscriber units and a GSM A-interface based network. Particularly, Spartz provides the interface and CDMA operability in a GSM based network by means of a message protocol using messages passed

between a base station subsystem with CDMA capability and a GSM mobile switching station over the GSM A interface. Genell is directed to the problem of testing base station transmit and receive quality by means of base station to base station communications. Such testing is *initiated* by commands issued by a mobile switching center (see Genell at column 6, lines 25-30), not by a base station. Neither Spartz nor Genell contemplates needs or requirements for base station-initiated, mobile-terminated calls to subscriber units over the A interface for the purpose of testing or for the purpose of providing service. Accordingly, there is no suggestion to combine Spartz with Genell to conduct tests with or deliver services to subscriber units by means of calls initiated by a base station over an A interface.

The contention in the Official Action at pages 2-3, in the section headed "As per claim 2:" is that Spartz teaches "sending a base station service request" from a base station controller to a mobile station controller at "col. 4, lines 39-45: col. 17, lines 60-65", and further teaches a base station Service Response message" from the mobile station controller to the base station at "col. 17, line 65 through col. 18, line 9". The applicants respectfully disagree.

At column 4, lines 39-45, Spartz describes "first establishing a CDMA over-the-air interface between a subscriber unit and a CDMA based BSS" and then a network connection "between the subscriber unit and a GSM MSC." No mention is made of "sending a base station Service Request from a base station to a mobile station controller for establishing a mobile-termination and base station-initiated call". At column 17, lines 60-65, a "BSS channel request 510" is sent from one to another base station component, but no "base station Service Request" sent "from a base station to a mobile station controller for establishing a mobile-termination and base station-initiated call" is described in this passage.

At column 17, line 65 through column 18, line 9, Spartz sets forth a set of signaling messages to establish bi-directional CDMA modulated RF signal interface between a subscriber unit 100 and a BTS 102. A close consideration of this sequence of messages shows, first, that it is initiated by a channel request sent by a subscriber unit 100. In other words, the sequence is responsive to a call setup request from a subscriber unit; it does not respond to "a call setup request by said base station". Further, the sequence is exchanged between a base transceiver station (BTS) 102 and a base station controller (BSC) 206; it does not constitute "a base station

Service Response message” sent from a “mobile station controller to said base station for acknowledging a call setup request by said base station”.

In fact, Spartz’ message protocol does not contemplate initiation of a call of any kind by a base station. It only deals with calls that are initiated by entities outside a telecommunications system containing a CDMA subscriber unit or by other subscriber units in the system. See FIGS. 6 and 7 and the accompanying descriptions in this regard.

Consider the protocol described in FIG. 6 and at column 13, line 60 through column 17, line 46. This protocol contemplates calls initiated by a “telecommunications entity other than a subscriber unit 100 interfacing with the wireless telecommunications system shown in FIG. 4” such as another subscriber unit or a data terminal. See Spartz at column 13, line 62 through column 14, line 2. However, all such calls begin “when GSM MSC 106 transmits paging message 300 to BSC A-interface 206 in accordance with the A-interface protocol.” Spartz, column 14, lines 2-5. Moreover, as FIG. 6 shows, all such calls begin with a message from the GSM MSC 106 to the BSC A-interface and are at best mobile switching center-initiated calls. No calls initiated by the BSS 105 (Spartz, FIGS. 4 and 5) are illustrated or described. In FIG. 6, a BSS “service request 386” is sent from a selection system 204 to the BSC A-interface, but no BSS service request is sent from the BSC A-interface to the GSM-MSC 106. Furthermore, this service request is not “for establishing a mobile-termination and base station-initiated call”.

In FIG. 7, Spartz illustrates “a subscriber unit originated call initiation procedure” resulting from “a telephone call initiated by a subscriber unit 100 of FIG. 2.” See Spartz at column 17, lines 47-52. No calls initiated by the BSS 105 (Spartz, FIGS. 4 and 5) are illustrated or described. FIG. 7 shows a BSS service request 551 going from a selection subsystem 204 to the BSC A-interface 206, and a BSS service request going from the BSC A-interface 206, but no BSS service request is sent from the BSC A-interface to the GSM-MSC 106. Furthermore, these service requests are not “for establishing a mobile-termination and base station-initiated call”.

Therefore, Spartz does not teach “sending a base station Service Request from a base station to a mobile station controller for establishing a mobile-termination and base station-initiated call” and then “sending a base station Service Response message from said mobile station controller to said base station for acknowledging a call setup request by said base station.” Genell does not rectify this omission.

In the Office Action at page 3, it is proposed that “Genell teaches that base stations can be placed in test mode wherein one base station issues a test command to another base station which in turn reports (*by initiating a call*) to a BSC and the BSC to the MSC (see col. 4, lines 48-67; col. 8, lines 33-67).” Italics have been added for emphasis. In fact, in Genell the entire process of testing is *initiated* by the MSC, which issues test commands to two BTS’S. See Genell at column 6, lines 25-30. A traffic bus 23 enables the BTS 16 to communicate test commands issued by the MSC 14 to the BTS’S 20. See Genell at column 6, lines 25-32. The measured test parameters “are reported to the BSC 16 over the traffic bus 23”. See Genell at column 6, lines 40-45. Then, as pointed out in the Office Action, the results are routed from the BSC 16 “to the MSC 14 for further processing”. See Genell at column 4, lines 59-62. Genell nowhere describes “initiating a call” between any of these entities; what is described is simply the exchange of commands and test results using a traffic bus 23 coupled through an A-bis interface. If any initiation is done, the MSC does it by issuing commands. If Genell does send a base station message from a base station to a mobile station controller, it is for the purpose of reporting test results to the controller, not “for establishing a mobile-termination and base station-initiated call”. If the cited passage of Genell is considered to suggest “sending a base station Service Request from a base station to a mobile station controller for establishing a mobile-termination and base station-initiated call”, or, indeed, *initiating a call* of any kind, the applicants respectfully request an indication of where such is described in Genell. Alternatively, the applicants respectfully request citation of a reference, entry of an affidavit, or taking of Official Notice in the file that Genell suggests a base station initiating a call. See MPEP 2144.03.

Claim 3 recites “sending a Paging Request message from said mobile station controller to said base station for establishing said mobile-termination and base station-initiated call”. The contention in the Office Action is that the paging request is taught in Spartz at column 17, line 60 through column 18, line 14. In fact neither this passage, nor FIG. 7 which it describes, teaches, or illustrates a “Paging Request” message from the GSM-MSC 106 to any component of a base station. If the cited passage of Spartz is considered to suggest this step, the applicants respectfully request an indication of where such is described in Spartz. Alternatively, the applicants respectfully request citation of a reference, entry of an affidavit, or taking of Official Notice in the file that Spartz suggests a mobile switching center sending a “Paging Request message” to a

base station for establishing a mobile-termination and base station-initiated call. See MPEP 2144.03.

Claim 7 limits the “Service Request” recited in claim 2 to containing “an identity of a mobile station” because “said mobile-termination and base station-initiated call is for said mobile station.” The contention in the Office Action (again citing Spartz at column 17, line 60 through column 18, line 14) is that such a Service Request is “inherent” in the prior art. The applicants submit that the “Service Request” of claim 2 is not taught or suggested by the prior art for reasons given above. Accordingly, such a Service Request further limited by claim 7 is neither “inherent” nor obvious. If the cited passage of Spartz is considered to suggest this limitation, the applicants respectfully request an indication of where such is described in Spartz. Alternatively, the applicants respectfully request citation of a reference, entry of an affidavit, or taking of Official Notice in the file that Spartz suggests a “Service Request message” containing “an identity of a mobile station” because “said mobile-termination and base station-initiated call is for said mobile station.” See MPEP 2144.03.

Claims 11 further limits the “base station-initiated” and “Mobile-terminated” call that is set up by a “Service Request message” for such a call sent from a base station to a mobile switching center. The contention in the Office Action is that such a method “reads on” Spartz at column 14, lines 15-23. The applicants respectfully point out that “call initiation “ of the call described in this passage “begins when GSM MSC 106 transmits paging message 300”. See Spartz at column 14, lines 2-5. The call is therefore an MSC-initiated call, not “a base station-initiated call”.

Claims 12-14 further describe the method for a “base station-initiated call” of claim 2. For reasons given above, Spartz does not teach or suggest transmission of a “Service Request” message from a base station to a mobile switching center for a “base station-initiated” call. All of these claims are limited to precisely such a method and are therefore not obvious in view of the proposed combination for reasons already set forth.

Accordingly, the combination of Spartz with Genell does not satisfy the requirements for prima facie obviousness with respect to claim 2, and claims 3, 7, and 11-14, which depend from claim 2.

Claims 19, 20, 24, and 28-31 are directed to an apparatus in a communication system that comprises “a base station configured for sending a base station Service Request for establishing a mobile-termination and base station-initiated call,” and “a mobile station controller configured for receiving said base station Service Request and sending a base station Service Response message to said base station for acknowledging a call setup request by said base station.”

Support for this rejection, found in the Office Action at page 4 beginning with the heading “As per claim 19:” is essentially identical to support of the rejection of claims 2, 3, 7, and 11-14 over Spartz and Genell. The applicants traverse this rejection for the reasons already given above. No motivation is established supporting the combination. Further, neither Spartz nor Genell teaches or suggests the initiation of a call by a base station by sending a Service Request from the base station to a mobile switching center; and neither Spartz nor Genell teaches or suggests a mobile switching center sending a base station Service Response message to the base station for acknowledging a call setup request by said base station. If the contention that Genell teaches a base station reporting test results “*by initiating a call*” the applicants respectfully request an indication of where such is described in Genell. Alternatively, the applicants respectfully request citation of a reference, entry of an affidavit, or taking of Official Notice in the file that Genell teaches a base station initiating a call. See MPEP 2144.03. Otherwise, the combination of Spartz with Genell does not satisfy the requirements for prima facie obviousness with respect to claim 19, and claims 20, 24, and 28-31, which depend from claim 19.

Claims 4-6 and 21-23 are rejected for obviousness over Spartz and Genell, and further in view of US Patent 6,519,266 (“Manning”). That rejection is traversed with respect to Spartz and Genell for the reasons already given in support of the patentability of claims 2 and 19. Manning describes a medium access control channel (MAC) at column 2, line 65 through column 4, line 26. At column 3, line 39 through column 4, line 26, Manning describes a “reconnect state” that the MAC transitions to when a data device 20 (FIG.1) transitions from a dormant state to an active state. Manning teaches only a channel-wide dormant state 114 of a packet data service. See Manning at column 4, lines 5-16. Manning does not describe, teach, or illustrate a “dormant state between a mobile station and a network”, let alone a dormant state between “a mobile station and said base station” before sending “said base station Service Response message”. If the cited

passage of Manning is considered to suggest this limitation, the applicants respectfully request an indication of where such is described in Manning. Alternatively, the applicants respectfully request citation of a reference, entry of an affidavit, or taking of Official Notice in the file that Manning suggests “establishing a Dormant state between a mobile station and said base station prior to said sending said base station Service Response message, wherein said mobile-termination and base station-initiated call is for said mobile station.” See MPEP 2144.03. Otherwise, the applicants respectfully request withdrawal of this rejection.

Claims 8-10 and 25-27 are rejected for obviousness over Spartz “in view of Genell and Levken” and further in view of US Patent 6,272,547B1 (“McWilliams”). That rejection is traversed with respect to Spartz and Genell for the reasons already given in support of the patentability of claims 2 and 19. Since Levken is not cited anywhere else in the Office Action to support any rejection, the applicants reserve comment on this reference until clarification as to its relevance is provided in the file history. Accordingly, the following remarks are limited to Spartz/Genell/McWilliams.

The rejected claims and the Spartz and Genell references are directed to telecommunications, and particularly telecommunications systems with base stations, mobile switching centers, and mobile units. The problem solved by the invention of the rejected claims is the initiation by a base station of a mobile terminated call over an interface between the base station and a mobile switching center. The precise architectures of a base station and a mobile switching center may involve computers, but the timer of the rejected claims is not directed to managing the transfer of files between computers; it is directed to the management of calls. McWilliams is directed to the reliable transfer of files between computers over an unspecified communication link, not to the management of telephone calls. Call initiation does not involve the transfer of computer files, or the reliability of data transmission. File transfer between computers can be done by many means including dedicated private networks or telecommunications systems. Consequently, the reliability of the transfer between computers according to McWilliams is devoid of telephone call management. Accordingly, McWilliams is non-analogous art with respect to the subject matter of the rejected claims. Further, these claims go to the method of claim 2 (or the system of claim 19) which is distinguishable from Spartz and Genell for reasons given above.